

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SCHNEIDER et al.

Atty. Ref: 1201-71 *rac*

Serial No.: to be assigned

Art Unit: to be assigned

Filed: March 12, 1999

Examiner: to be assigned

For: **ULTRASOUND CONTRAST AGENTS AND  
METHODS OF MAKING AND USING THEM**

\* \* \* \* \*

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

**Declaration Of  
Arthur R. Crawford**

I, Arthur R. Crawford, declare as follows:

1. I am a citizen of the United States, with a business address at Nixon & Vanderhye, P.C., 1100 North Glebe Road, Arlington, VA 22201. I make this declaration in support of the above-identified application and in accordance with Rule 608(a).

2. The Applicants of the above-identified application ("Applicants") are and will be prima facie entitled to a judgment in an interference with U.S. Patent Nos. 5,573,751 (the "'751 patent") and 5,409,688 (the "'688 patent") based on priority, as is explained further below.

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3. Applicants have submitted proposed Count 1 which defines the interfering subject matter between the Schneider et al. application filed on or about March 12, 1999 and the '751 and '688 patents. The proposed count recites:

Count 1

Contrast media for ultrasound imaging comprising gaseous microbubbles comprising octafluoropropane or decafluorobutane. [**'751 claims 2 and 3**]

or

A biocompatible ultrasound contrast agent comprising perfluoropropane, wherein a portion of said perfluoropropane is present as gaseous microbubbles suspended in a carrier. [**'751 claim 5**]

or

A biocompatible ultrasound contrast agent comprising perfluorobutane, wherein a portion of said perfluorobutane is present as gaseous microbubbles suspended in a carrier. [**'751 claim 9**]

or

A biocompatible ultrasound contrast agent containing gas-filled liposomes, the improvement comprising including microbubbles of at least one gaseous fluorine-containing chemical in said liposomes, wherein the fluorine-containing chemical is selected from the group consisting of perfluoropropane or perfluorobutane, and mixtures thereof. [**'751 claim 13**]

or

A biocompatible ultrasound contrast agent containing a suspension of encapsulated air-filled microspheres, the improvement comprising replacing all or a portion of the air with a chemical selected from the group consisting of perfluoropropane and perfluorobutane. [**'751 claim 15**]

or

A biocompatible ultrasound contrast agent containing a suspension of crystals in a saccharide diluent, the improvement comprising providing microbubbles of a perfluoropropane or perfluorobutane in said suspension. **['751 claim 19]**

or

A biocompatible ultrasound contrast agent containing an emulsion of highly fluorinated organic compounds, the improvement comprising providing microbubbles of perfluoropropane or perfluorobutane in said emulsion. **['751 claim 21]**

or

Biocompatible ultrasound contrast media comprising free gas microbubbles of a fluorine containing hydrocarbon or sulfur hexafluoride. **['688 claims 1 and 3]**

or

A contrast agent comprising stabilized microbubbles, said stabilized microbubbles comprising a physiologically acceptable gas selected from the group consisting of freons, halogenated hydrocarbons, and fluorinated gases, said stabilized microbubbles being stabilized at least in part by a surfactant. **[Applicants' claim 1]**

4. Applicants are entitled to a priority date of April 2, 1990, the filing date of EP No. 90810262.7 for which Applicants have claimed benefit, through a chain of applications, for the interfering subject matter (see Count 1 above) between the aforementioned Schneider et al. application and the '751 and '688 patents. Each of these applications in the chain is a constructive reduction to practice of the interfering subject matter and Count 1.

5. In contrast, the inventor of the '751 and '688 patents is only entitled to an earliest possible effective filing date of September 17, 1991 for both the '751 and '688 patents, the filing date of U.S.S.N. 07/761,311, the earliest Quay benefit application. Thus, the earliest

[illegible]

Respectfully submitted,

*Arthur R. Crawford*  
B. Crawford

Dated: March 12, 1999

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